Meta-Xenakis

New Perspectives on Iannis Xenakis's Life, Work, and Legacies

Edited by Sharon Kanach and Peter Nelson

https://www.openbookpublishers.com

Sharon Kanach and Peter Nelson (eds), *Meta-Xenakis: New Perspectives on Iannis Xenakis's Life, Work, and Legacies*. Cambridge, UK: Open Book Publishers, 2024, https://doi.org/10.11647/OBP.0390

Digital material and resources associated with this volume are available at https://doi.org/10.11647/OBP.0390#resources

ISBN Paperback: 978-1-80511-224-2
ISBN Hardback: 978-1-80511-225-9
ISBN Digital (PDF): 978-1-80511-226-6
ISBN Digital ebook (epub): 978-1-80511-227-3
ISBN HTML: 978-1-80511-229-7
DOI: 10.11647/OBP.0390

Cover image: Iannis Xenakis at the C.R. MacIntosh Museum, Glasgow, Scotland, 1987. Photo by Henning Lohner, courtesy of CIX Archives, Lohner collection.

Cover design: Jeevanjot Kaur Nagpal

With generous support from: Centre Iannis Xenakis, Xenakis Project of the Americas/The Brook Center, Université de Rouen: BQRI, IRIHS, GRHis, CÉRÉdI.

27. Music, Science, Architecture: Two Conversations with Iannis Xenakis

Julio Estrada[1]

Introduction

In 1994, I had a couple of meetings with Iannis Xenakis, the first in April and the second in December. I proposed to record both of them as informal conversations, and he willingly accepted. Originally, I did not think of publishing them. My intention was to better understand the imagination of someone I had met around 1967 during my studies in France and with whom I shared a frank communication. Over time, this straightforwardness developed into a long-standing and pleasant friendship. Whenever I could, I would chat with him one-to-one about the link between his ideas and his music, because he was the most different and boundary-pushing musician I have ever met. From this last perspective I understood that our bond was not one of formal discussion about his theories, aesthetics, or music; with that approach it was impossible to maintain the openness necessary to address such issues. These talks were spontaneous, closer to those we had on our train trips during the eighties or, as almost every month in the early nineties, at his dining room table or, rather, his kitchen table. As the years went by, I came to understand him better, despite his permanent tendency to take refuge in an abstract discourse in order to avoid musical dialogue. In the field of music, his training was purposely incomplete, to the point of opting for ignorance instead of traditional knowledge. Paradoxically, thanks to this evasion and an original imagination, he achieved accomplishments that distinguish and honor him. Works like *Metastasis* (1953–4) were among the very few that managed to reveal a new and direct perception, something capable of producing fascination and intrigue at the same time. Almost three decades after this pair of dialogues, sometimes interspersed with jokes or laughter, I share them for the first time with readers so that their freshness may contribute to celebrations for the centenary of the great Xenakis's

1 Translation, from the French, of the two conversations with Xenakis, by Sharon Kanach and Julio Estrada.

 https://doi.org/10.11647/OBP.0390.29

birth, demonstrating that he was far more accessible than the distant image that he and the snobbish musical milieu tended to project.

Conversation with Iannis Xenakis: Part 1

April 1994, Xenakis's Studio, Paris

JE: How do you imagine music; that is, the internal relationships in the process of creating it?

IX: I can't tell you that, I don't know. Do you think I can imagine exactly how a whole piece is going to unfold before I start writing it? No, I do that while I'm working. I make sketches, and try to figure out how it will work, how it should work, and that's that!

JE: How do you go about sketching: with drawings or sometimes with equations?

IX: There are different kinds of sketches. Sometimes they're drawings, sometimes with notes, writings.

JE: Texts?

IX: Yes, texts.

JE: And sometimes also by trying out certain musical passages once you've memorized certain aspects of it?

IX: Yes.

JE: Do you take this aspect of music from your memory and reintegrate it into the writing process, for example?

IX: Eventually, yes. But that's normal practice; it's nothing special. Everyone works like that, in every field. Elsewhere, it's the same, whether you're a scientist or an artist or even a banker [...] but I don't know how a banker works!

JE: You said a long time ago that you imagine things in the dark.

IX: In the dark?

JE: In the dark, yes, that you imagine in the dark; that there aren't any images.

IX: There are no images. No, no, there are no images. I don't know what there is.

JE: Is there a sense of movement within?

IX: Yes, of course, but they're not images; they're not cars, or stars, or snails.

JE: Nor even pigs!

IX: No, not pigs! (Laughs)

JE: Is it a nebulous environment in the dark?

IX: No. They're ideas, abstract ideas. You don't need any images for that.

JE: At the same time, are they audible?

IX: Heard.

JE: Heard?

IX: Yes, but in a certain way.

JE: Sometimes yes, sometimes, no?

IX: Sometimes, yes. That's right because it also depends on how you dress these ideas or thoughts.

JE: Clothing, garments?

IX: Garments, yes. If it's clarinets, if it's an orchestra, if it's music [...].

JE: What I'd like to talk about—and I think you're very close to it—is music in which there is no language; that is, there is no conditioning, in particular, of eminently abstract music.[2] [...]

IX: You mean for music based on a text? If so, for example, I'm working on a commission for the BBC, and I've composed the music. Now I'm in the process of applying words to it, and I thought of a text by Shakespeare that came back to me because I've known it by heart for seventy years.[3] So now I'm trying to apply it, but not in a regular way, but in a fragmented way, you see? I take the phonemes and place them anywhere on the music. And because when one sings, one uses phonemes, whether one likes it or not. In *Nuits*[4] (1967), I used phonemes from all sorts of languages.[5]

JE: But here, for example, with this text by Shakespeare, how do you disperse it? Is it your memory of the text over time?

IX: Yes, but I use the text from Shakespeare's *The Tempest* in which I acted—I was Ariel at the time—and I cut the syllables, the phonemes, and then I mix them up and put them anywhere on the music.

JE: Like a combinatorial or random process?

IX: Yes, yes.

JE: But there's now a strong connection with your memory of the text, that is, you put this text in time.

IX: That's precisely what I do. I take the text and break it up. It's as though I have a text, and in this case, I split it up into phonemes, mix it all up, and then toss them.

---

2 I really wanted to get Xenakis to focus here on music without any references to language, but he insisted on exploring other means of using literature when writing music.

3 Here, Xenakis is referring to his work *Sea Nymphs* (1994) for mixed choir. See Ryan Power, "Iannis Xenakis—Sea Nymphs (Audio + Full Score)" (31 Mar 2022), *YouTube*, https://www.youtube.com/watch?v=z3SCoWVjOZs

4 *Nuits* (1967), for 12 mixed solo voices or mixed choir. Based on Sumerian, Assyrian, Achaean, and other phonemes.

5 "Iannis Xenakis - Nuits (w/ score) (for 12 voices) (1967/68)" (12 Oct 2015), *YouTube*, https://www.youtube.com/watch?v=jESS3gP1GGE

JE: Like confetti?

IX: Yes, like confetti, that's it, do you find that funny? (Laughs)

JE: A lot of your music or pieces are related to physical space; that is, virtual movements produced by the instruments, especially, for example, in *Terretektorh*.[6] This aspect is particularly linked to your imagination because it's unique. I think you have a very precise commitment to the idea of space in your own music.

IX: Listen, I have spent my life, during my holidays, on a kayak with Françoise—who doesn't like that; she's already written about it, by the way.[7] Well, what's kayaking? It's being in the sea, and sometimes there are storms. There's either silence, or waves, or just the feel of things. But there's a sound environment everywhere, and that didn't exist before in music, because we were always frontally oriented, unfortunately or fortunately. So I asked myself: how did Beethoven[8] listen to his symphonies? From within the orchestra or as a listener? And where should the listener be placed: in the front row, the tenth row or at the very back?

JE: Or in the middle of the orchestra…

IX: Or in the middle of the orchestra. Or above the orchestra or behind the orchestra. The German architect who designed the Berlin Philharmonic, Sharoun, created a concert hall with people behind the orchestra.[9] But from behind, you can't hear! I was in Berlin when he was finishing that, and I was even there with the physics professor from the Technical University of Berlin. He had a phonometer in his pocket, measuring the echoes in the hall, which wasn't yet open to the public—to see if he had made a mistake, because he was the acoustic consultant. Well, it doesn't work having the audience behind, because all the musicians are watching or all the instruments are turned towards the conductor; in other words, the audience in front of them. But I thought it would be interesting to try something different. That's why, in Strasbourg, we removed the chairs, and the conductor, who was German, and the orchestra too, were in the middle of the hall, and once that was done, there was not much room for the audience but a little balcony for them which is fine. The program included Mozart[10], Stockhausen[11], who was on stage, *Terretektorh*, and then Wagner.[12] You see, in

6 *Terretektorh* (1965–66), for 88 musicians scattered throughout the audience. Hessischer Rundfunk, "Iannis Xenakis—'Terretektorh' für Orchester - Cresc... Biennale für Moderne Musik" (28 Nov, 2011), *YouTube*, https://www.youtube.com/watch?v=37ajOyhcl_c

7 Xenakis, 1994.

8 Ludwig van Beethoven (1770–1827), German composer and pianist.

9 Hans Sharoun (1893–1972).

10 Wolfgang Amadeus Mozart (1756–1791), Austrian composer.

11 Karlheinz Stockhausen (1928–2007), German composer.

12 Richard Wagner (1813–1883), German composer. This concert took place as part of the Musica Festival on 20 September 1984, with the Philharmonique Orchester Freiburg (see "Programme," *Festivalmusica*, https://festivalmusica.fr/documentation/editions/1984).

order to put all the musicians back on stage and put the chairs back for the audience… What a bloody mess! So I said, "Why don't you leave the musicians where they are? We'll listen to Wagner like that."

JE: Of course!

IX: And we did. It was wonderful, and I don't think Wagner ever heard his music like that.

JE: No, but you had imagined it for *Terretektorh*, didn't you? Did you decide on and follow a, let's say, serpentine form, one that circled around?

IX: Yes, yes, of course. But I had lots of strings, for example, and they had to make a continuous ring of sound; then the other instruments were also dispersed.

JE: This was also done at in the lobby of Radio-France, with Charles Munch[13] conducting, right? Only the strings were placed in a circle…

IX: Charles Munch? What are you talking about? No, no, it wasn't Charles Munch, no, no, no. It was […] You generally have an extraordinary memory, but now yours is worse than mine, eh?

JE: It was in '68, yes, this circular room with a […]

IX: Yes, but it wasn't Charles Munch, no, no, no, no, no. It was Bruck!

JE: Charles Bruck[14], okay. I'm sorry.

IX: Well, it's a good thing I'm here! Yes, that's right, that was it, *Terretektorh*.

JE: Yes, the way you had conceived the piece…

IX: Yes, yes, that's how I conceived it. There was a ring of strings and then the others were scattered too…

JE: In other words, you created an architecture of musical space?

IX: Yes, there was an architecture of sound…

JE: […] that you temporalized within the music based on this architecture of musicians distributed throughout the room. You let it unfold in time.

IX: Yes, sir.

JE: There you go. But there are two things: the first is the architectural organization, which ultimately determines the whole score; and the other is to imagine with a certain conviction how the sounds will move in space? How will they circulate? Why do they move from left to right and not […]?

IX: I even chose their speed, you know?

JE: You mean, of course, the kinetic trajectory?

IX: And it followed an Archimedean function. There are several logarithmic Archimedean functions, for example of the speed of motion of sound that slows

13 Charles Munch (1891–1968), French conductor and violinist.
14 Charles Bruck (1911–95), French-American conductor.

down, or accelerates, etcetera, and of several forms. I wanted to try it out and see if it worked. Well, you have to be in the middle to hear these things, or you can hear who's far away, which is also quite nice. So, I was thinking that in these cases, there's also another problem, which is when there's sound or even for moving light, there's the—what do you call it—effect?

JE: Doppler?

IX: Doppler, yes. *Merci*, sir! The Doppler effect. That is, you have (he hums…).

JE: The passing ambulance…

IX: …yes, I'm the ambulance! It was quite difficult, but I did it, or I tried to do it. You have the sensation of something moving, because otherwise you only have the impression of the sound getting closer or being softer because it's further away.

JE: Yes, yes. It's a virtualization through dynamics.

IX: Yes […] but no, through the interstice, you mean, right?

JE: Yes.

IX: But there's no movement in the true sense of the word; that is, when you're used to hearing sound. But then it becomes physical with the Doppler-Fizeau effect.[15]

JE: So, do you imagine some kind of wave moving away, or approaching; in the same way as you did in your kayak?

IX: Absolutely, of course […]

JE: […] and that comes from 360 degrees? If someone asks you how you listen to music, it seems like there's an imaginary scuba helmet over your head!

IX: In that case, yes, because in other cases, no, it's remains frontal. Left and right. And that's it.

JE: Yes, like in *Retours-Windungen*,[16] for example, where the twelve cellos are placed in a semicircle.[17]

IX: Yes, that's right; it's a plane.

JE: But one where there's an integration of sound movements that you hear in physical space—those that will occur as well as those that you hear after that given moment. They're distributed in space and cut into little fragments so they can be articulated as they move. They don't fit into a completely continuous composition.

IX: Yes.

JE: There are segments of sound which, through a certain kinetic density, accumulate

15 "Doppler-Fizeau Principle," *Photonics*, https://www.photonics.com/EDU/Doppler-Fizeau_principle/d3641

16 *Retours-Windungen* (1976), for twelve cellos.

17 12 Cellists of the Berlin Philharmonic, "Windungen für 12 Violoncellisten" (6 January 2015), *YouTube*, https://www.youtube.com/watch?v=MX9s4Of9c8g

and give the impression of a sound or noise moving away or approaching in space. For example, each musician who plays a sound must receive that sound and make it *crescendo*. Like a spider.

IX: Huh? No. But the one who receives the sound has to make a *crescendo* and the other, the one who gives the sound, has to make a diminuendo. But that's very difficult to achieve. You must have the sensation that the sound crosses and moves, and it's not just that the sound moves in dots. That's it. It's the most difficult thing and you have to work on it a lot. I did that with percussion in *Pléiades*[18] too, I think.[19]

JE: Rather, in *Persephassa*.[20]

IX: Yes, in *Persephassa*, thanks! (laughs).[21]

JE: Yes, there you play with the hexagon...

IX: ...Yes, that's right.

JE: ...in an abstract and at the same time in an extraordinarily eventful way.

IX: Yes, it's necessary for each player to pass on a diminishing sound, all while listening to what the others are doing.

JE: Of course.

IX: *Voilà*! But that's not the case. It's very rare when that works.

JE: Have you ever thought of musicians actually walking around in space?

IX: Yes, I did it, in *Eonta*.[22]

JE: Ah, yes, because the brass instruments approach the piano and play inside it.

IX: And they also have some fun walking around, etcetera.

JE: And all this is part of the particular conviction of the way you want the music to be heard, isn't it?

IX: Yes, of course, they're experiments to see how it can...

JE: ...you can't just experiment, it's something that makes...

IX: ...no, it's part of...

JE: ...of imaginary time.

---

18 *Pléiades* (1978), for six percussionists.

19 Tracotel, "Iannis Xenakis, *Pléiades* (1979)" (5 February 2013), *YouTube*, https://www.youtube.com/watch?v=dqtFGaHcWRk

20 *Persephassa* (1969), for six percussionists. Alxarq Percussió, "Persephassa (1969)—Iannis Xenakis" (15 October 2022), *YouTube*, https://www.youtube.com/watch?v=cLUss2hPVD4

21 In the "Performance Notes" in the score of *Pléïades*, Xenakis specifies, "The players should be placed either on an elevated platform in the middle of the audience which would thus surround them, or else, on a stage in a row in front', showing that spatialization was equally one of the composer's preoccupations in this work." (Xenakis, 1978, n.p.)

22 *Eonta* (1963), for piano and five brass instruments. Ensemble Linea, "ENSEMBLE LINEA—IANNIS XENAKIS—EONTA" (13 September 2011), *YouTube*, https://www.youtube.com/watch?v=IzUPAMY2A8k

IX: Yes.

JE: That's right, there's a kind of faith that…

IX: …yes…

JE: …no! It's an inner conviction…

IX: …no: that's your imagination. When you want to do something, you imagine it and then you realize it, little by little.

JE: But are you confident you can achieve a certain result?

IX: No, that's working on paper, trying to imagine things. It's not like that: bingo!, like some sort of divine illumination.

JE: No. But there's something that makes the thing imagined […].

IX: That's it. There's always a starting point […]. Often, we don't pay attention to it. Sometimes there are lots of things like that that you can think of but that don't really have anything to say—"No, that's not what I mean, I'm not interested in that, I'll do something else." And then, after a while, you may say—"But that was pretty good, it could work. It could be the seed for other great things, perhaps?" And you start working. That's how I work, and that's how the spirit of man—who is a poor fellow, by the way—lives. Man is a poor fellow.

JE: …who stays…

IX: …um…yes.

JE: One day I asked you—because of your inclination to space and spatialization—if you were left-handed and you told me—"No, I'm not left-handed!", but then we found out that you were a left-handed contrarian.

IX: Yes, contrarian […], that's what I was told. Maybe I was a left-handed contrarian.[23]

JE: Maybe? Why perhaps?

IX: Because you know, in those days when I was a kid, I lost everything. There was nothing left… I didn't live in a house, in a town: it was all completely turned upside down. So I don't know what I was like back then.

JE: But who told you that you were left-handed?

IX: Just a rumor from my childhood. I was in Romania at the time and […]

JE: And you don't remember?

IX: No.

JE: Or […] don't you remember the teacher who bugged you, who annoyed you and told you "Don't write with your left hand"?

IX: I don't remember, I have no memory of that time. But what do you expect? I do

23 "This question refers to research I've been pursuing for nearly half a century, based on the observation of my students: right-handed people tend to imagine focally, as if wearing a mask, while left-handed people imagine environmentally, as if wearing a scuba helmet." Estrada, 2024, n.p.

what I can. Besides, it's a bad thing to have a sharp memory, because afterwards you can't imagine new things. Be careful, you have to forget! (Laughs)

JE: This is something I'd like to talk to you about. When you hear music, it's happening in time, but where is your memory then? It's somewhere else. Not all music creates sounds in a specific ambit that retains the events that have just occurred: one doesn't get attached to them but creates them. These events are actually created in a living way, to support this constant, conscious life at every moment. In this way, you can't lose yourself in the past.

IX: In the past, no. No! Listen, the past, that is, the repetition of something, exists in architecture too, in sculpture. I don't know about painting. It's also a legacy of past centuries: architectural motifs, for example, that repeat themselves. You can't invent new forms all the time. That's the point. The ideal, in architecture for example, is to build something that doesn't repeat itself: a house wouldn't have to be made of squares, for example, or rectangles, or straight walls, because that's repetitive—and that can give you something that's […]. In fact, no, you can't have, you can't invent something that doesn't repeat itself. It doesn't exist, be it for terrestrial life, on Earth, or for the movement of the Earth, the sun, the stars, the universe. There are things that repeat themselves in a terrible, dreadful way as they are, but with small differences that we don't perceive, but which exist and make things change, little by little. And that's that. So, in music and art, this is very important. In the old days, you had a theme that you repeated at will, with polyphony and so on. That's how it used to work, and not only that, but you could do *da capo*, for example, exactly as it was, *da capo*, without changing a thing. With great musicians like Beethoven, we began not to write *da capo* but to change constantly. Instead of *da capo*, Beethoven created variations. Brahms's[24] variations on Haydn are extraordinary, because in the variation there's exactly this problem.[25] Variation means not having an identity as such, or having an identity, but not quite the same one: it has to change. Then we can go very far: the identity has to change in such a way that we no longer understand anything. That's all there is to it. That's what I've always done as a musician. I didn't want to have repetitions of this or that, but maybe I'm wrong...

JE: That reminds me of Julián Orbón.[26] He used to say that there are two kinds of compositional thought: on the one hand, there are musicians who think in terms of variations of models, with constant manipulations of the same things

24 Johannes Brahms (1833–97), German composer, conductor, pianist.

25 黃紹綱, "Brahms Variations on a Theme by Haydn op.56a" (30 April 2015), *YouTube*, https://www.youtube.com/watch?v=CcOEumzkaTQ

26 Julián Orbón (1925–91) was a Spanish born Cuban composer, who sometimes also lived in Mexico and the United States. I studied with him at the Mexico National Conservatory between 1961–3 and privately with him in New York in 1962 and 1963.

and always attached to memory. And on the other hand, was symphonic development, like that of Beethoven, for example, who didn't want to endorse this notion of variation, in the same way as the others.

IX: And then...

JE: ...so, you identify with this second trend?

IX: Hmmm [...] Maybe, I think. Wait, what? Did you just insult me? Of course not!

JE: (Laughs) No!

IX: Let's go! What's next?

JE: That is to say, you would rather be identified with this kind of conception of a continuous development of music without arriving at variation? Meaning without memory, but in the sense of continuous time?

IX: Yes, but memory is there all the same.

JE: In the sense of certain ideas that are maintained, that "snake" through the form?

IX: Yes, yes, that's the most interesting thing. When you have an identity, that is a being you have in your head, that you've worked on and made, but if you make this being... for example, a chord, as simple as that: a chord. This chord can last three hours even, (hums), if you have instruments that can handle it...

JE: (also hums). (Laughs)

IX: ...but, you get tired after a while and say—"I've had enough of this, next; what's next?", well, then it's after that that it might become another different chord, etcetera. That's the way things are, because [...] we're bored, we're used to development, to change.

JE: You have to let people perceive...

IX: ...yes...

JE: ...that's it. And then?

IX: Yes, yes, what's next, because you can make a chord and then give the guy who's listening a shotgun blast and then [...] (Laughs)

JE: So, it's again a spider, it's the same spider; that is to say, it has six legs, it moves one, then another, and the other, and the other...

IX: Why always a spider? It could be another insect...

JE: Spiders are in continuous transition.

IX: But [...] it could be another insect; it could be a salamander...

JE: A salamander is an insect? Now you're a zoologist! (Laughs)

IX: It could be a [...] a, what's it called? [...]

JE: A worm?

IX: Yes, it could be an earthworm, which never sees the sun [...] and can be very big—you know, earthworms used to be huge, in prehistoric times.

JE: [...] But I mean, in the face of this continuous transition, which certainly retains a good deal of previous information and moves little by little, until it becomes a new one, as in the transition in space [...].

IX: Yes, it can change slowly, but it can also change abruptly, rapidly. That's how it works in music; it has always worked that way. A carbon copy by repeating it as is, or modifying it. Why do we say—"yes, that's what represents the composer's identity"? Why do we say "Yes, it's a work by Mozart because we recognize..."

JE: ...that it's a good piece? (Laughs)

IX: No, because it's similar to what we know of Mozart, and the same goes for Beethoven. Sometimes they get confused. Is it Mozart or Beethoven, because they don't sound alike. But that means that someone's personality is also something where there are repetitions of a certain type.

JE: It's his way of communicating certain information, it's a way of conveying...

IX: ...yes, not only to communicate, but also to invent them beforehand. That's what happens at certain points in history because traditions change too. Each generation takes what has been said before and tries to do something different with it. If they don't try, it gets tiresome everywhere and they do something else. And so, in the end, sometimes there are major differences between eras. So, there you go. In other words, what you're doing is the same as what musical culture has been doing for thousands of years. That's what I mean. We don't produce anything else and that's a shame, but that's the way it is. It's man's destiny; he can't do anything. He's a poor guy, very stubborn in the end. Yes, indeed!

JE: "I'm the great memory [...] because it's genetic too," as another fellow would say.

IX: As well, of course. For example, genetics is a perfect example of that, because each couple makes a being where there are mixtures of what they are, but also other things that aren't them. And then, little by little, they drift apart. For example, the grandchildren of the original couple may be very different from their grandparents. But they're still human. They're not monsters or maggots! They are because it's the force of genetics that gives them an identity—which is translated into form. Shape is the shape of the human body, which makes us all human. For example, the skull of a contemporary of Lucy was found, with a very strong chin and thick eyebrows, and it was a male. Lucy's head is lost, so unfortunately, we don't know what she looked like.[27] But we're like that bloke, for example, there's not a lot of difference. It's been three million years, all the same, but that's not much. Then there are other permanent features or similarities:

27 "Lucy (*Australopithecus*)" (19 March 2024), *Wikipedia*, https://en.wikipedia.org/wiki/Lucy_(Australopithecus)

we can see [...] we have two eyes, two ears, etc., this binary symmetry of the body. But it's been around for two hundred million years, or even four hundred million years. That's fantastic! But why? We don't know the causes of these things, but there is a permanence to them. So that's why a poor composer also has permanence; it's because he's learned these things, it's because he's also inventing from known things.

JE: In your case, for example, and your penchant for architecture [...] your particular organization of space, is combined with a way of constantly experiencing time. In your architecture, there's a characteristic tendency to organize structures in space in an abstract way. As in *Terretektorh*, there's an architecture of the distribution of musicians that defines what's going to happen through the evolution of time. There's a moment when you can combine or move from your architectural imagination to the temporal imagination of music. Maybe that was at the beginning. You had some musical training since you were a child, and you also had this interest in architecture. At some point you put them together.

IX: Yes.

JE: One day, when we were in Mexico, you told me about the origin of all this. You listened to sounds after your injury and wanted to translate them; that it was very important for you to transmit these sounds you heard in your ear, something that was bothering you.

IX: And still does!

JE: Still?

IX: Yes, of course.

JE: I didn't know! How is it that you've integrated your two vocations? You're sometimes compared to Da Vinci[28], aren't you?

IX: Ah, Da Vinci! Yes!

JE: Who had a lot of interests.

IX: But it's natural for humans, because we have eyes, we have ears, and we address [...] and touch [...].

JE: Yes, and smell! Taste and bad taste. (Laughs)

IX: Yes, bad taste. (Laughs) Right. But, then, the most important things are the eyes and the ears. Because the sense of smell is only used in cooking, it's only used when we're making love... The sense of touch is also important, but we don't use touch so much.

JE: (Inhales deeply) Not when making love?

IX: In love or elsewhere; you don't make love all the time, or do you? Whereas with

28 Leonardo Da Vinci (1452–1519), Italian polymath (painter, sculptor, architect, engineer, scientist, theorist...).

your eyes and ears, you make love all the time. You live with these two things, they're constant, and you're aware of space, of encounters; you recognize enemies or friends by their voice.

JE: Yes.

IX: Still, there are things that create an interference between the two; and another thing is to discover connections, identities, for example [...].[29]

Conversation with Iannis Xenakis: Part 2

7 December 1994, Xenakis's Studio, Paris

JE: Last time, we talked about the imaginary world, and we got a bit carried away. But there are certain questions I'd still like to ask you. And the first starts with a parable: I want to ask you about your relationship with Beethoven's music. I remember that one day, looking at the huge quantity of your scores you have in this corner [...], and you immediately said to me: "Is it too much?" and you said immediately, after: 'Beethoven, he'd done more than that!'.

IX: Yes, I don't know how much he'd made. Do you?

JE: No, no, (IX laughs) [...] but, is there a connection between what you're doing and Beethoven? It was he who demystified the relationship between music and religion; he distanced himself from the religious side of music. He was much more secular; he was a revolutionary, someone with political ideas. He was also committed and broke with all the norms of his time. In a way, it all coincides, doesn't it? Tell me about it!

IX : What?

JE: Not "what"! (laughter)

IX: What do you want me to say? Something about Beethoven?

JE: Yes.

IX: It's very difficult for me because I used to love Beethoven. I often listened to him when I was young, and then I stopped listening to music a long time ago. And that's because on the one hand I don't have the time, and then it bores me. (Laughter). It's true! I don't even listen to my music. I have tapes that I haven't listened to, for example.

JE: Was there anything in Beethoven that attracted you in particular? A certain connection with his side of being a committed person?

IX: No, not the committed revolutionary side, no, no, no; that's not what attracted me. It was for his music. I know he had met the German philosopher...

29 This conversation was interrupted by a phone call Xenakis was expecting and received at this point.

JE: Goethe?[30]

IX: Goethe, yes. I believe he loved Beethoven, didn't he?

JE: *Si*.

IX: *Voilà*!

JE: And Mozart.

IX: And Mozart too, yes. But... *Nein, Nein*. I've been trying to think for a long time about these things because I think that, even if you have political ideas or whatever, when you make music, really music that's not imitative, it results in music that imposes itself, that leads or that un-leads. Do you understand?

JE: Mmm...

IX: So, it's not program music; that's what I mean. It was in his character to make the music he did. With his intelligence. Character and intelligence. He had these two things that go together. And that's it.

JE: I remember the way you explore this freedom, this attitude that doesn't cling to the past, nor to certain laws or norms that have already been established. That's what I saw as the identity shared with Beethoven.

IX: Ah, yes. A self-respecting composer has no right to imitate or imitate himself, because otherwise there's no point. It's been said by others in an extraordinary way, so if a composer imitates himself, he's screwed. Do you understand?

JE: Yes.

IX: There you go. So that's the difficulty of invention, the difficulty of being ... different; that is, of being different first of all from others, well, of being yourself, because unfortunately, we're human [...] and we have internal resources, and these internal resources impose what you think.

JE: And in a way, you were going to spend this abundance of internal resources in a logistical way; that's to say by developing theories, ideas, methods, techniques during certain periods. And today we can see how there has been a relative distancing from all these resources that were your strengths—it was also a bit your carapace, in a way that you got rid of, in my opinion.

IX: Yes.

JE: As with other composers. And now you abandon that part, all those extraordinary powers of the time, of your resources, and you start doing something much more spontaneous.

IX: Eh...

JE: There's something like that going on with Beethoven too, in Beethoven's last period...

30 Johann Wolfgang von Goethe (1749–1832), German author and polymath.

IX: Yes...

JE: ...He did the same. He became much more humble, with an attitude much more confident in other resources, in his intuitions.

IX: I don't know. Why are you comparing me to Beethoven in the first place? [...] Do you think it's important?

JE: I think it's a good way of not addressing me too directly yet being more...

IX: Ah, *gut, gut*! (Laughs)

JE: ...and things you wouldn't want to say about yourself..., you'll say:—"ah, yes, Beethoven did [that], but I didn't." (Laughs)

IX: No, I think that someone who works hard, who makes efforts—I make efforts—that doesn't mean they're "stable" every time, one tries on the one hand to cultivate oneself, like a peasant—you know, in the fields... that's to say to bring forth what's inside. And to do this, he has to forget his contingencies, his education, his experiences... he has to be as new as possible. When I say new, I mean something not yet done by anyone, not by himself, not by others; and that's the hardest thing there is, because we're limited. We've got a brain that dates back, let's say, three million years, and we're limited because we've got a small skull, right? (Laughs) So, I notice that in all the sciences and among all the scientists, there's, suddenly, an interesting theory coming out. A lot of people get involved—and then there are others who [...] even contradict it. And then it goes on like that, and the only way of knowing whether it's interesting or not is the so-called "technological" result—not theories, because there are lots of theories that contradict each other too. A technological result is proof that it's scientifically valid, or at least an indication that it's more valid than something else. Since we always live in the clouds, and whatever we do, we stay in the clouds. But sometimes these clouds have material spin-offs that justify—up to a point—these images. For example, there are theories today that say there are infinite universes, and that time, that the finite thing, is something from the past. I'm reading this book that talks about infinity as an element that is fundamental and exists even if we try to eliminate it, and that nevertheless exists in everything, it's very interesting, by a guy called Luminet, a Frenchman, an astrophysicist.[31] So, that's what happens with composition, in exactly the same way. You have ideas, but these ideas have impulses, or instincts, but that doesn't mean that they are valid. So you criticize what you do—in principle, because I don't know what *you* do—but you criticize when you can. (Laughs) But that doesn't mean that criticism solves all problems because there are some

31 The book in question is actually co-authored: Jean-Pierre Luminet (b. 1951) and Marc Lachièze-Rey (b. 1950), 1994. See also the two authors more recently: DunodVideos, "Un voyage passionnant dans l'infini grâce à Jean-Pierre Luminet et Marc Lachièze-Rey" (24 June 2016), *YouTube*, https://www.youtube.com/watch?v=Gy5rAF_NHmU

things you can't do anything about. You say, "yes, I like that," or, "I want it to be like that," and not, "I like that, but I want it to be like this"—because liking something means that...

JE: It's also about making choices. For example, I think that in the last ten years you've made the choice to go..., that you've taken on a pattern in which you allow yourself things that before weren't so possible?

IX: I didn't think [...] in recent times...

JE: You've given yourself permission...

IX: ...to...

JE: ... to be spontaneous?

IX: Eh well ... yes and no. Yes and no!

JE: For example, in one year you compose, say, six different works; whereas before, it was more like one work per year.

IX: Ah, yes.

JE: It's not just a question of quantity, but that access to music...

IX: Oh yes. But I'll give you an example: the calculation of probabilities was very important to me sixty years ago. I'd studied math books and then, like that, I oriented my music, with what I felt was necessary—because it comes from very far back—and with what was calculable, let's say, to be able to be written. But these things have always remained. I don't do all those calculations anymore, I don't go into that field of probabilities, but it's still there. At the same time, I make little programs, etcetera, that allow me to go, to be [...], to be able to proceed, to be able to do things, you know?

JE: Yes. All right, then. But...

IX: ...but that's one thing. It's mixed with...

JE: ...of course, you maintain a way of proceeding...

IX: ...yes...

JE: ...and this way of proceeding—the stochastic, probabilistic sound—you dominate it and, in a way, you have changed the way of dealing with the technical, methodological relationships.

IX: Yes.

JE: Let's say it's an imprint on you. That's clear: something in your choices is stochastic. It also means not getting attached to many things; it's something completely related to these stochastic aspects and at the same time a somewhat macrocosmic vision...

IX: ...that's it, yes...

JE: ...of musical phenomena or compositional thinking.

IX: That's right.

JE: [...] But [...] even in all this, I don't think you allow microcosmic things to happen any longer; that's to say, aspects of your own microcosm...

IX: Not calculated, you mean? Unplanned? Not predictable?

JE: *Voilà*!

IX: Yes, of course, of course!

JE: ... I would say sequences...

IX: Yes, yes, yes, but that's always been there. It can't be avoided.

JE: Yes, but you used to...: Take for example *Achorripsis*... it was one of the "test pieces": a piece really in which you could see that it was a demonstration of stochastics.[32]

IX: Well, yes and no: it's not completely stochastic, just in large part only.

JE: Okay, but these are laws of distribution, of number of instruments, of number of events per predetermined duration...

IX: ...yes, yes...

JE: ...or by number of bars per section, etcetera. It was to demonstrate to the listener, in a very obvious way, what the stochastic method was for you.

IX: Mmm, yes...

JE: But there, let's say the permissiveness of your microcosm was minimal; it was, say one per cent?

IX: *Nein, nein, nein*! Ah no, no, no, no, no, no! Because even to do that, I had to have a fair amount of internal permissiveness. Listen! (Laughs)

JE: But you're more permissive today, aren't you?

IX: To dare to do that? (Laughs) No, I don't know. It's changed its appearance because I'm always criticizing myself: it's not just based on theories, either physical or mathematical, but also on things I'm trying to understand and that interest me and that aren't from the past, not imitative or reproductive, but new. That's what I think [about]: being new. Maybe I'm gaga and I don't understand anything anymore, that's another thing; nobody can say. When you're gaga, you don't realize things; it's the others who say – "Ah yes, that's the gaga guy," but you say—"No, I'm not gaga." (Laughs) You know what I mean?

JE: So, what I said was that you give way to many more personal fields... I'll phrase it another way...

IX: Yes, try it.

32 *Achorripsis* (1956–7), for twenty-one instruments. Contemporary Classical, "Iannis Xenakis—Achorripsis (with Score) (1957)" (19 Oct 2020), *YouTube*, https://www.youtube.com/watch?v=rEyqJPW3Hi8

JE: I think that before, there was a certain obstacle to manifesting yourself spontaneously in music and that you used all this protective, intellectual, very strong, very well-built, and extraordinary carapace.

IX: Thank you, thank you, thank you.

JE: *Je vous en prie*! (Laughs) [...] That, let's say, protected you in this way of proceeding in the composition...

IX: ...yes...

JE: ...once you'd managed to create this universe of your own—respected by everyone for its production, for the importance of the music, for the novelty, for the originality—at that point, you took a certain retreat and [said], "Well, what else is there to protect...?"

IX: ...you mean defend?

JE: Yes [...]. Saying, for example, "What is there to defend: sounds or action? Let's act in a much more immediate way, let things that arise on first impulse manifest themselves."

IX: If they're interesting, yes; if they're not, don't bother.

JE: Of course. Let's say you haven't stopped "technicking," but at the same time there's this manifestation, which is more obvious, in which you take much more of the risks that come from your microcosm and appear in your music.

IX: ...Maybe, maybe. Listen, lately I've been developing new techniques for instrumental music in particular. [...] Instead of having, for example, quadraphony with strings [...] I have sixty strings. So, what do I do with these sixty strings? Well, I make them play at the same time, each at an interval of a semitone or something like that, and that makes a harmonic magma that's different from what we know. And that, for example, is an experimental thing; but all the same, there's thought there. Why not have a continuum instead of individual pieces from Mozart or whatever? Because that's how it was! And why four voices? It's hard to imagine five voices, even if even earlier composers imagined twelve different voices. But why four voices and not all the voices? Sixty voices! Now that's an achievement! The same goes for the other instruments: instead of having four voices—for example, four horns, four trumpets—because that's about the average limit for large orchestras—let's play them four at a time without there being melodies swirling around, between them. That gives much more timbre, you know? And that's what interests me, because we're fed up with melody and polyphony itself, because we hear it in music all the time, including in today's light music. When I say light, I mean music where you see people gesticulating on stage, etcetera.

JE: Rock-n-roll?

IX: Yes, for example, rock-n-roll or anything, all the music you hear on TV, especially

because you don't hear other music there. It's melodic because it's easier and the instruments are melodic.

JE: Let's say that now you've taken up an aspect that wasn't there before in your music… under the melodic aspect, but now it becomes a hyper-cluster…

IX: That's it. That's it!

JE: …enormously dense, which can vary in density…

IX: Yes, but the problem is how to vary these hyper-clusters, as you say, without contours either in the melody or in […] nebulae that we don't understand.

JE: (Laughs)

IX: Yes, it's true, it's…

JE: But we perceive everything, don't we?

IX: From the point of view of perception and dynamics, yes, but it's not just the perception and dynamics of the thing. It's the dynamics of music that make you hang on or not to evolution—because unfortunately, music evolves. It's not like a painting, which is fixed; it's all there. But music is in time. So that's something that has to be taken into account in a way that's, I'd say, simultaneous. And so, for example, you invent timbres, but you forget the melodies, or you make traditional melodies, or something that resembles traditional melodies: look at the melodies from Japan to the United States—or the other way round, eh? (Laughs). You see, they're always the same! It's always the same, it's melodic, it's interesting sometimes, or it's beautiful, etcetera, but it's melodic! Do you understand what I'm saying?

JE: Yes. Now, to talk about your integration of melody… I remember that you used to often say "ah, melody, there's no such thing…" You had a strong rejection to it. But now you forget this rejection?

IX: Yes.

JE: We are always changing, criticizing ourselves, evolving, learning things, and taking every possible path, otherwise we'd be locked into a single path, and that would be silly. But I really admire your choice …

IX: You're right! (Laughs) I don't admire myself, you know; no, but I don't admire at all. At least someone admires what I do. That's good!

JE: For me, what seems very important to consider in your current evolution is that this permissiveness is greater in the microcosm, for direct choices instead of taking indirect ones. This direct choice—which stems perhaps from the importance of the graphic methods you've created, in which the "resulting scores" are indirect—manifests itself in the graphic, which is very direct. This impulse of the hand that drives thought […] through drawing …

IX: Yes, maybe. I wanted to simplify; is that what you mean?

JE: Yes, that's it. In other words, there are choices that are made indirectly by stochastic methods—if they are still there today, they are part of these indirect choices—, there are now other, much more direct choices that are made by hand, by drawing…

IX: Oh yes, live, yes, yes.

JE: By manual means of computing…

IX: …and because I trained in the meantime.

JE: Of course, but what's great, Iannis, is that at the beginning, you didn't have, let's say, a conservatory training.

IX: Ah, not at all!

JE: You really were the black sheep… (Laughs)

IX: …absolutely, yeah, yeah…

JE: …from the conservatory. Well, let's say, your conflict with the limitations of old teachers in conservatories, you've solved it with rational thinking.

IX: Yes. But I had a composition teacher who was a Greek from Russia. He had studied, he'd been… [33]

JE: He's the one has taught you Mozart's *Requiem* by heart.[34]

IX: Exactly, but you've got a great memory! (Laughs) […] So I had a base, if you like, but maybe not a huge one, because there's no point in having a huge base on the two things.[35]

JE: No, but let's say you didn't fit the standards predefined by the conservatory.

IX: No.

JE: And so you took a path completely off the beaten track, and went right past the music world to, in the end, demonstrate that you had created completely new paths on which the whole music world now incorporates or is in the process of incorporating.

IX: Yes.

JE: That's what's… great!

IX: You speak well, very well!

JE: But what's happened now since you've managed to do this? To demonstrate—because it's a demonstration—that you can make music by incorporating structure, by incorporating mathematics, by understanding other fields of thought—even biology, botany, astronomy—, and open up this dogmatic field of the little parish priests' seminaries, which is limited…

33 This is Aristotle Kondourov (1896–1969), cf. Matossian, 2005, p. 27.
34 Mozart's *Requiem* in D minor K. 626 (1791), for four soloists, chorus and orchestra.
35 Xenakis's idea of "two things" likely refers to composition and music here.

IX: Yes, yes, yes, absolutely…

JE: …to all free men. And that's where there's an enormous liberation of other people's thoughts, through your music.

IX: Really?

JE: This is where I think of Beethoven.

IX: Yes. Beethoven was Mozart's pupil, don't forget that!

JE: Bad student.

IX: Yes, bad student. (Laughs)

JE: Let's say that when you listen to Beethoven—to return to Beethoven—you get the impression that this man, who was a revolutionary, well, you can ignore his whole personal history.

IX: Ah, you must, you must, otherwise…

JE: But it's his music that brings us to a new, free space, in which the choices are made in a different way.

IX: What I'm going to tell you, to give you an example… in the nineteenth century, it was Brahms. Brahms, I liked him immediately when I heard him, so I could have studied what he had done […], read his scores, all that. But no, not at all. I liked his way of doing things on a higher level, if you like: his harmonic dynamics, for example…

JE: Its architecture?

IX: Its architecture and also the means beneath it. But I never studied him in any great depth, because I didn't want to be stifled by that sort of thing. It's a very important thing—but I still love Brahms as a special star of the nineteenth century, even of the twentieth century.

JE: Who is far away, whom you admire, but from whom you take nothing?

IX: No, I didn't try to imitate him. But what interested me was his personality. Now, you're going to say to me, "How come you liked this personality since you're, supposedly, not of the same personality?" Because we're multiple.

JE: Of course! I heard you say on New Year's Eve in '83 or '84, "Let's put on some Brahms, because that's the farthest musician from my universe."

IX: You have an extraordinary memory. How come?

JE: I know you. (Laughs)

IX: Ah, that's right, yes.

JE: You said it well: "He's the one who is the farthest… who is the most different." So we listened to the Quintette in F minor.[36]

36 Antonio Prieto Pérez, "Johannes Brahms, 'Quintet for Piano and Strings in F minor, Op. 34'" (9 January 2018), *YouTube*, https://www.youtube.com/watch?v=NmWt6foZflM

IX: That's it. I like it a lot. But you see Mahler,[37] for example, who's a very well-known musician—well, there are a lot of people who love him, and in particular my friend de La Grange, who spends his life writing about Mahler.[38]

JE: Yes, who did a lot of important work on Mahler.

IX: Yes. But I'm not interested, if a music doesn't interest me, I see lots of filaments clumping together. It's rare when I'm interested. But it's clinging to its present and its past, and not in the best way; it's not revolutionary enough, if you like.

JE: A very impotent side to his music.

IX: There. Do you believe that too?

JE: There's an anecdote in one of La Grange's writings on Mahler.

IX: What?

JE: I'll tell you about it later...

IX: ...okay... (Laughs)

JE: ... Mahler's meeting with Freud,[39] but let's get back to melody...

IX: Yes... Yes, then?

JE: Something you incorporate, already incorporating the melody there are the rhythms that come. Something that struck me a lot in *Pithoprakta* were the rhythms: these rhythmic strokes that had a certain order and, at the same time, destroyed what was somewhat in order, but also a certain chaos.[40]

IX: Yes.

JE: Now in your music you reincorporate a rhythmic element, but one which serves the melody and is almost monorhythmic...

IX: Mmm...

JE: And with this monorhythm, I think you're reassimilating things that Messiaen advocated.[41]

IX: Really?

JE: I hear certain rhythms and that's not all, I don't think you're picking up on [...].

IX: Ah, but let me tell you, Messiaen was very much inspired by ancient rhythms.

JE: Yes, Greek, Latin...

IX: A lot. Yes, but that's it, because you can't escape these things because you're

37 Gustav Mahler (1860–1911), Austro-Bohemian composer and conductor.

38 Henry-Louis de La Grange (1924–2017), Franco-American musicologist, biographer of Gustav Mahler.

39 Sigmund Freud (1856–1939), Austrian neurologist and founder of psychoanalysis.

40 *Pithoprakta* (1955–6), for forty-nine musicians.
Pierre Carré, "Iannis Xenakis—Pithoprakta (w/ Graphical Score)" (30 April 2017), *YouTube*, https://www.youtube.com/watch?v=nvH2KYYJg-o

41 Olivier Messiaen (1908–92), French composer and organist, with whom Xenakis studied at the Paris Conservatory intermittently between 1951–4).

in time and so you propose something "A." It is found a bit deformed a little later, with intermediate elements, but rhythm is something: time [...]. It's the reappearance of things, a phenomenon that exists in all human knowledge, whether in astrophysics, chemistry, whatever... there are repetitions all the time, but it's annoying.

JE: Yes, but there's a choice...

IX: That's why I've tried to get past that and to make continuous transformations.

JE: In rhythm?

IX: In the appearances of sound. We go from one place to another without intermediate milestones that make rhythm, but it's a continuous transformation, this which is different from the thing in the musical sense, because when you say—in tradition there are melodies, in other words, notes, and notes have to be set in time—and so you have strings of notes and these notes are set in time with rhythms, either equal or unequal rhythms, or feet, things.

JE: Yes, but you're talking about the continuity of rhythmic time, or durations in time. You're talking about a rhythm that has no measure, that's out of measure...

IX: That's right.

JE: And that is something that brings us back to Messiaen.

IX: It's a transformation...

JE: But Messiaen created an enormous independence—and Stravinsky[42] too mixed a lot of metrics at the same time...

IX: ...yeah...

JE: ...or juxtaposed metrics. But Messiaen abandoned this process and created enormously elastic metrics that ultimately lead us to eliminate the idea of measure, and ...

IX: I don't know.

JE: [...] when we perceive the melodies you make, these macro-clusters with melodies, I perceive a...

IX: Can you feel Messiaen in it? Can you hear Messiaen in it?

JE: I hear Messiaen and I'd even say that when you combine melody and rhythm, there's a connection with Messiaen. I had noticed this in another piece of yours, two or four years ago when I listened to it.

IX: But have you heard the latest pieces I've done for orchestra? No.

JE: I listened in...

IX: No (an alarm makes the words unintelligible).

42 Igor Stravinsky (1882–1971), Russian composer and conductor.

JE: What's this instrument of martyrdom?

IX: Eh? An alarm clock, I don't know.

JE: An alarm clock?

IX: Let it run...

JE: ...no, I haven't listened to any recent orchestral pieces by you. I mean, I've seen the scores. Yes, I've heard something conducted by Yuji Takahashi I think.[43]

IX: Takahashi, yes.

JE: There is a disc: *Real Time*.[44]

IX: That's right, yes

JE: And on this record there is a piece for orchestra by you which has quite a few moments of hyper- clusters with rhythms that are very... "à la Messiaen."

IX: Oh well...

JE: I'm not saying that in a critical sense, it's just that I think some of the things you're doing now are reincorporating elements... [...]. Would it then be permissible for you to open up a space for influences in this way of composing today? Why not?

IX: No, I don't know [...], I don't know.

JE: (Laughs) Are you upset that I say there is something of Messiaen?

IX: No, but I'm surprised.

JE: You're surprised?

IX: *Ja*!

JE: No, it's not... (silence). I heard, wait a second... a Trombone Concerto in Copenhagen.

IX: Yes.

JE: Right. So, the orchestra part also has this character.

IX: "Messianesque?"

JE: Not "messianic?" (Laughs)

IX: No. "Messianesque!"

JE: "Messianesque," yes.

IX: So, wait, which piece is it? ...

JE: Messiaenoid? (Laughs) I don't know how to say it.

IX: It's... Wait... what's the name of that piece you heard? I don't remember.

43 Yuji Takahashi (b. 1938), Japanese composer, pianist, conductor, and author. Y. Takahashi studied with Xenakis at the University of Indiana, Bloomington and also in Berlin as an associate Ford Fellow, while Xenakis was there in 1963–64. See also Chapter 3 about this period. Xenakis dedicated two works to Y. Takahashi: *Herma* (1960–61) and the previously mentioned *Eonta*.

44 Takahashi, 1992.

JE: Where? [...] on the *Real Time* record?

IX: No, not at all, the one with the trombone: *Troorkh*! That's what you heard. *Troorkh*: it's for trombone and orchestra.[45]

JE: Yes. *Troorkh*, yes.

IX: Ah, I don't know, maybe, it's difficult to listen to your own music.

JE: But, for example, the string quartet... what's it called, the one that's made of scales?

IX: Quartet... *Tetora*?[46]

JE: Is that *Tetora*? It's your penultimate quartet, isn't it?

IX: Yes, it's possible.

JE: That's right: there's *ST-4/1*,[47] then *Tetras*,[48] and then *Tetora*, right?

IX: Yes, hold on, I'll get that for you.

JE: Right. There, there is the very idea of scales or rhythms, or harmonies that are formed, or shaped. It's not that you're looking for these harmonies, but they form all the same—they make a certain recall in their sonorities that could have been elaborated by Messiaen.

IX: No, that... I don't know, if you say so, it's like that.

JE: (Laughs)

IX: *Troorkh*, that's it, trombone and orchestra. (He pulls out the score) But... I wrote it in '91 [...], three years already. (Silence) Let's move on!

JE: (Laughs) You don't want to talk about that?

IX: Huh? No, but that's because I can't tell you anything about it.

JE: Oh okay. Right...

IX: You can say that because you're on the outside, but I'm on the inside, so I can hardly...

JE: ...no, I would say that, for example, [...] the idea of continuum in rhythm is still discontinuous. The values you use are discontinuous values.

IX: Ah well, of course, but [...] you can't not be discontinuous in the rhythm. Because it's...

JE: Yes, through acceleration and deceleration? That would be equivalent to a

45 *Troorkh* (1991), for trombone solo and eighty-nine musicians.
Ryan Power, "Iannis Xenakis—Troorkh (Audio + Full Score)" (27 October 2021), *YouTube*, https://www.youtube.com/watch?v=HonX4NrO8FY

46 *Tetora* (1990), for string quartet.
Bob Sweeney, "XENAKIS The Complete Quartets: Jack Quartet Tetora (1990)" (23 April 2014), *YouTube*, https://www.youtube.com/watch?v=9OyLiAPuRXs

47 *ST-4/1* (1956–62), for string quartet.

48 *Tetras* (1983), for string quartet.

continuum of frequencies.

IX: Yes and no... yes.

JE: Shortening frequencies and durations, a *glissando* would be equivalent to an *accelerando* or *deccelerando*.

IX: Yes, but you always think of time as if it were notes. You have to see time in time; let's say, it's one after the other. Well, that's time. But it's very distinct from the rest, even if you, for example, do 2, 3, 5, 6 and then [if] you [have] those same numbers to say—"I'll take a 2, 3, 5, 6 melody"—, you're mixing things that can't be mixed. That's what I mean. I'm not saying that doesn't do it, but time is of a different essence. Because time is like having boxes: here you put one box—that's a certain domain of time—here, another box in another domain. Different things, you see? But you don't have to measure and say, "Oh yes, it takes longer." We do that, unfortunately, but it's not necessary. Do you understand what I mean? No, you don't.

JE: No, but it's okay...

IX: Never mind. (Laughs) *Tetora*, which you mentioned, it was in 1990 that I wrote it.

JE: Yes, but... let's go back to the idea of freedom, which has always been essential to you [...] It's what I was thinking of when I said that there would be elements that could be associated with Messiaen, in particular the rhythms, I thought of the idea that so many of your choices could incorporate known things, things that are part of a tradition to which you belong, that is, of your teacher...

IX: Oh no, no, no, not at all! Messiaen, no, no... Listen! I took his class because he didn't just talk about himself, he talked about Schönberg,[49] he talked about ... Debussy,[50] Hindu music, French music from 550 years ago—about Machaut,[51] for example—things like that. He talked about Stravinsky [...] well, a lot of things like that. And he also talked from time to time about what he was doing. What I really like in Messiaen's work are, for example, his organ pieces, which are really very strong from the point of view of thought.

JE: I think he managed to create a huge independence between rhythm and sound [...], he's one of the very few who managed to achieve that.

IX: Yes, but I don't know if it's a way of thinking about music, but it's a way of thinking about music that's quite traditional. Even if it's... [...]

JE: ...with him, you say?

IX: Yes. Although his rhythms are different—because he was into that—but there are parts of his music that are very traditional too. And that interested me a lot

49 Arnold Schönberg (1874–1951), Austrian-American composer, music theorist, author, and teacher.
50 Claude Debussy (1862–1918), French composer.
51 Guillaume de Machaut (1300–77), French composer and poet

less, in his pieces for orchestra or piano (a doorbell rings). That's Radu Stan.[52] I'll open up for him. Let's stop here?

JE: Yeah. *Jawohl*.

References

ESTRADA, J. (2024), *Realidad e imaginación continuas. Filosofía, teoría y métodos de creación en el continuo*, Instituto de Investigaciones Estéticas, Mexico, UNAM.

LUMINET, Jean-Pierre and LACHIÈZE-REY Marc (1994), *La physique et l'infini : Un exposé pour comprendre, un essai pour réfléchir*, Paris, Flammarion.

MATOSSIAN, Nouritza (2005), *Xenakis*, Nicosia, Moufflon Publications.

TAKAHASHI, Yuji (1992), *Real Time 3—Xenakis—Maceda*, Tokyo, Fontec, https://www.discogs.com/es/release/10377624-Yuji-Takahashi-Real-Time-3-Xenakis-Maceda

XENAKIS, Françoise (1994), *Moi j'aime pas la mer*, Paris, Balland.

52 Radu Stan (1928–2021), was a Romanian musicologist who worked at Editions Salabert (the main publisher of Xenakis's scores) in the Promotion of Living Composers Department. He devoted much of his energy to defending and promoting Xenakis. When he retired from the publishing house, Xenakis hired him as his agent, and he worked exclusively for him almost until the composer's death.